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EXAMINER

POLLACK, MELVIN H

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/551,014

Applicant(s)

ROMA, NORBERT

Examiner

Melvin H Pollack

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: see attached office action.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of the claims must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.
2. At present, only three figures are present in the drawings. The first drawing shows a typical computer. The other two drawings show an unclear graph related to the results. This case requires better drawings, such as a figure of the network, a diagram of the invention in operation, a flow chart of the process, a state diagram, or even a representation of the data stream or resources. None of the current figures sufficiently represent the invention or the claims.
3. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. The drawings of Figs. 2 and 3 are further objected to because they do not provide sufficient labeling. One of ordinary skill in the art could not view these figures and determine what precisely the figure shows. More detailed labels – a legend to differentiate between two graph lines, a label to explain exactly what k and r represent, and perhaps a title – are required. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Response to Arguments

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5. Applicant's arguments filed 12 February 2004 have been fully considered but they are not persuasive. A list of the reasons is provided below.

6. The examiner withdraws the original 101 rejections, due to the amendments and remarks submitted.

7. The applicant argues that Schultz does not expressly show or define "data stream." The examiner apologizes for the confusion, and will attempt to clarify. The data stream consists of a document library (i.e. the database library) associated with a document record archive. The user then can select a document (where the selected document is referred to as a selected resource) and compare it to the other stored documents and to the document theme. This is performed using the related document record, which contains score and analysis information.

8. The applicant argues that Schultz does not adequately show both a resource analysis and a data stream analysis. The examiner notes that the claims, as currently drawn, are related to the topic (theme) being compared to the resource, and to the data stream. As the examiner interprets this claim, the comparison to a resource involves comparing the topic to the data stream as a whole, and then to the selected resource, and the selected document is the resource that closely matches the data stream in relation to the topic. If this is the case, then the already highlighted section clearly shows this to be performed. If this is not the case, then the applicant clearly needs to clarify and amend the claims to show the invention more precisely.

9. The applicant claims that the order of Eichstaedt is different from the order of claims 2 and 3. The examiner notes that there is little functional difference (P.12, line 21 – P. 13, line 7) between the two processes, let alone a functional difference sufficient enough to be distinctly separate processes. In both cases, a profile is selected, based on the user. (The claim does not

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detail how the profile is selected, so the examiner may assume any profile selection mechanism.)

In both cases, a score is determined by comparing the profile to a group of documents as reference. (The claim only indicates that the reference corpus of documents is separate from the data stream where the document to be retrieved resides, and does not specify the composition or characteristics of either the reference corpus or the data stream. The examiner interprets past access patterns – documents already selected and rated – to fulfill this limitation.) In both cases, the resulting scores are then used against a data stream (i.e. a collection of content) to determine which documents (content and document are considered functionally equivalent) to select. The definition of “push” content is that a server, rather than a user or client computer, selects the documents. Applicant does not state in the claims that the profile cannot be updated, nor do they state the content or development of the profile. Applicant further forgot to mention that Eichstaedt clearly determines the content to push by comparing profile information (i.e. user interests) to the reference corpus (previous documents) to determine a score, determining a second score by comparing the data stream (potential content to be pushed) to the user’s subscribed categories and category rankings (more profile information), and then comparing the scores. Further, the applicant fails to explain how or why the two methods are different, and merely asserts this to be true. As for whether the profile is generated each time or remains static, it still fulfills the steps of the claim and is therefore irrelevant. More importantly, however, is that the profile is dynamic – always changing based on user activities – but still selectable based on the particular user. And, as stated before, there is no mention in the claims that the profile cannot change, and certainly not that the same profile must be used in two separate analyses (this

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would mean that the profile can never be updated), and there is no indication that the profile suddenly changes during the Eichstaedt process.

10. In response to applicant's argument that Eichstaedt is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the art is clearly both in the field of the applicant's endeavor, and further clearly pertinent to the problem of selecting content, i.e. a document, from a collection of content, i.e. a data stream.

11. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, please note that it is one of ordinary skill in the art, rather than a "skilled artisan" (P. 15, last line).

12. Furthermore, as shown above, the teachings can be found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. While the first is preferable, there are cases where the second is acceptable. This is particularly true in design choice cases. For example, if a prior art patent shows a red door, one of ordinary skill in the art does not need a prior art reference to state that the door may be painted blue. Likewise,

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the particular algorithm of how to determine scores, be it an exponential decay function or a power law function or a simple average, is considered by the office to be a design choice. As long as one of ordinary skill in the art has analogous art that shows the scores may be derived by a certain function, he can easily determine which function to use, and there doesn't have to be any motivation other than personal preference. That said, the examiner will now provide reference-based motivation regarding the claims as currently drawn.

13. At the time the invention was made, one of ordinary skill in the art would have used a power law function, such as the one from Cook, in a system such as Eichstaedt, because they are easy to emulate in digital hardware (col. 1, lines 15-16) and because they adequately express changes over time (col. 1, lines 25-30) to assist Eichstaedt in updating scores and profiles as shown above.

14. At the time the invention was made, one of ordinary skill in the art would have used a power law function, such as the one in Heckerman, in a system such as Eichstaedt because, in accordance with Zipf's law, they can handle a large number of scores and would thus allow Eichstaedt to be scalable (col. 10, lines 53-64).

15. As for the combination of Schultz and Evans, the motivation was clearly given and shown in the reference: to allow for multiple databases, which in turn would improve efficiency in the system. The applicant simply asserts the motivation to be lacking, when it clearly exists, rather than challenge it or provide any evidence for why the items cannot be combined.

16. For these reasons, and the reasons provide prior to this action, the examiner has determined that these claims are not allowable as currently drawn.

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17. Under normal circumstances, this rejection would be made final. The examiner has chosen to make it non-final in accordance with the rules regarding adding new rejections, such as 112 2nd rejections.

Claim Rejections - 35 USC § 112

18. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

20. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the definition of “analyzing” and “comparing results” in claim 1, and its relationship to “determining and comparing scores” in claim 2.

Neither the claims nor the specification adequately show the relationship between claims 1 and 2, let alone the particular relationship above. Does the analysis comprise determining a score, or is claim 1 a separate process from claim 2. The examiner cannot reasonably determine if claims 1 and 2 represent different inventions, different embodiments, or the same embodiment with different scopes. Nor can the examiner determine the validity or method of adding claim 2 (or dependent claim) limitations into claim 1.

21. Claims 8, 9, and 15 share similar problems.

22. All other claims inherit these deficiencies.

Claim Rejections - 35 USC § 102

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23. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

24. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Schultz (6,208,988).

25. For claim 1, Schultz teaches a method (see abstract) of selecting documents from a data stream (col. 1, lines 5-20), comprising:

- a. Selecting a resource having information comparable to said data stream (col. 1, lines 45-55);
- b. Selecting at least one topic (Fig. 2, #206, 208);
- c. Analyzing said topic against said resource (col. 1, lines 50-55);
- d. Analyzing said topic against said data stream (col. 1, lines 55-67); and
- e. Comparing results from said data stream analysis to results from said resource analysis to select a document from said data stream (Fig. 2, #208, 210).

26. Claims 2, 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Eichstaedt et al. (6,385,619).

27. For claim 2, Eichstaedt teaches a method (see abstract) of selecting documents (col. 1, lines 5-11) from a data stream (Fig. 2, #58 and #64), comprising:

- a. Selecting a profile (Fig. 2, #62);

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- b. Analyzing a reference corpus of documents against said profile to determine at least one score (col. 1, lines 35-55);
 - c. Scoring at least one document from said data stream against said profile (col. 3, lines 15-25); and
 - d. Comparing said scores from said data stream document to said at least one score from said reference corpus to select said document from said data stream (col. 1, lines 59-62).
28. As for claim 3, Eichstaedt teaches that the method further comprises determining a plurality of reference corpus scores defining a plurality of delivery ratios, and determining a delivery ratio that corresponds to said score from said data stream document to select said data stream document (col. 4, lines 4-30).

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eichstaedt as applied to claims 2, 3 above, and further in view of Cook et al. (5,557,227).
31. For claim 4, Eichstaedt does not expressly disclose that the scores are determined according to an exponential decay function, further defined in claim 5. Eichstaedt does disclose that a decay function of a generic type is used (col. 4, lines 6-8), and that many suitable scoring functions may be used with similar effect (col. 4, lines 15-16). Cook teaches the definition and

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use (see abstract) of an exponential decay function (col. 1, lines 9-11). At the time the invention was made, one of ordinary skill in the art would have used said function because it is easy to emulate in a computer (col. 1, lines 14-15). Further, the choice of function is a design choice.

32. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eichstaedt as applied to claims 2, 3 above, and further in view of Heckerman et al. (6,529,895).

33. For claim 6, Eichstaedt does not expressly disclose that the scores are determined according to a power law function, further defined in claim 7. Eichstaedt does disclose that a decay function of a generic type is used (col. 4, lines 6-8), and that many suitable scoring functions may be used with similar effect (col. 4, lines 15-16). Heckerman teaches the definition and use (see abstract) of an exponential decay function (Fig. 6a). At the time the invention was made, one of ordinary skill in the art would have used said function because it can be used to model a variety of items in accordance with Zipf's law (col. 10, lines 53-64). Further, the choice of function is a design choice.

34. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schultz as applied to claim 1 above, and further in view of Evans (6,473,755).

35. Claim 8 is drawn to many of the limitations of claim 1, which Schultz teaches as shown above, but is further drawn to the steps of:

- a. Receiving an information request from a communication network (Fig. 2, #202);
- b. Selecting a data source (see below); and

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- c. Transmitting said retrieved documents over said communications network (Fig. 2, #210).

36. Schultz teaches the reading of multiple data sources into a database (Fig. 1, 110 and 112), but does not expressly disclose selecting a data source. Evans teaches the selection of a data source (Fig. 2, 120). At the time the invention was made, one of ordinary skill in the art would have modified Schultz to use multiple databases so as to concentrate documents related by topic for faster processing (col. 5, lines 5-15).

37. As to claims 9-20, they do not teach or define above the correspondingly rejected claims 1-8 and thus claims 9-20 are rejected for the reasons given above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin H Pollack whose telephone number is (703) 305-4641. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (703) 305-4003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MHP
13 May 2004



RUPAL DHARIA
SUPERVISORY PATENT EXAMINER